

Verde Watershed Currents

Summer 2015

Sycamore Creek: a natural wonder.

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Woodhouse's toads: have you heard them?

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A wet spring and perhaps a wet summer too.

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Sycamore Creek

There are many Sycamore Creeks in Arizona. These creeks share a common trait - the presence of the Arizona sycamore tree (*Platanus wrightii*). This common tree is one of the largest and most striking deciduous trees in the Southwest, conspicuous along desert valley riparian corridors and canyons.

The Arizona sycamore's canopy spreads widely and is asymmetric, with beautifully arched, white branches and huge, mottled trunks. It reaches up to 70 feet in height. Light gray, or sometimes greenish, outer bark flakes off to reveal its white inner bark. Leaves are large, palmate (hand-shaped), lobed, and resemble a star. These trees produce round balls composed of numerous tiny, tufted seeds that disperse in the wind. Arizona sycamores are especially valuable for preventing erosion along stream banks, as well as providing food and nesting spots for birds.

In the Verde River Watershed, there are two Sycamore Creeks: a long drainage in the Verde Valley Sub-Basin of the watershed - which drains into the middle section of the Verde River in the Verde Valley - and a shorter, but still significant drainage in the Verde River Canyon Sub-Basin of the watershed, which drains into the lower section of the river.

The longer of the two creeks begins its journey in the meadows and forests of Garland Prairie above the Mogollon Rim, between Williams and Flagstaff, and travels approximately 25 miles to its confluence with the Verde River east of Clarkdale. The path of this Sycamore Creek runs through three different National Forests - Coconino, Kaibab, and Prescott National Forests - and has over time, created the centerpiece for one of Arizona's oldest Wilderness Areas, Sycamore Canyon.



Sycamore Creek by Derek Von Briesen
Title photo: West Clear Creek by Derek Von Briesen

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Sycamore Canyon, photo by USFS Southwestern Region, Kaibab National Forest

Sycamore Creek (continued from page 1)

Sycamore Canyon is one of the most beautiful canyons in the Southwest and the second largest canyon in Arizona, after Grand Canyon. The canyon walls include displays of red sandstone, white limestone, and dark brown-gray basalt.

Although Sycamore Canyon is approximately 21 miles in length, only a small portion of Sycamore Creek - approximately 4.5 miles - flows perennially (year-round) in the canyon. This flow first emerges from groundwater at and around Parsons Spring, and flows continuously from there to the Verde River. This perennial section of Sycamore Creek supports a riparian area very rich in plant and animal life. Other portions of Sycamore Creek can flow during some snowmelt periods and monsoon storms. Additionally, there are some springs in spots throughout the canyon, providing water for canyon wildlife and thirsty backpackers.

Ring-tailed cats, jackrabbits, black bears, mountain lions, elk, deer, rattlesnakes, scorpions, canyon wrens, hermit thrushes, and many other creatures inhabit the area. Vegetation in the Sycamore Creek watershed varies widely with elevation and the availability of water, and includes pine, fir, sycamore, walnut, cottonwood, juniper, and mesquite. Chaparral covers many areas, which includes a number of shrubby plants such as manzanita, silk tassel, bear grass, yucca, and mountain mahogany, as well as an interesting variety of cacti, grasses, and oaks. Plants such as columbine and watercress can be found near springs and seeps.

The perennial section of the creek provides lush habitat for wildlife that includes otters and great blue herons.



For exceptional experiences of solitude and enjoyment of the natural world, the backcountry areas in the Sycamore Creek Watershed - especially in the designated Wilderness Area - provide many opportunities for the day-hiker, backpacker, or horseback rider. Others may wish to experience climbing, mountain biking, or a four-wheel adventure along the canyon's rim or in other permissible areas.

In recent years, other tributaries of the Verde River, such as Oak Creek and Fossil Creek, have been experiencing extremely high numbers of recreationists. In these places, and in more remote areas such as Sycamore Creek, it's best to practice wise stewardship and care while visiting. Guidelines, such as those offered by the ethics code of "Leave No Trace", provide us with critical advice, which when heeded, may allow the flora, fauna, and landscapes of our environments to be sustained and for our natural resources to be available in their priceless and beautiful form for generations to come.

Article by Marianne Davis

*"If there is magic on this planet, it is contained in water."
~Loren Eiseley*



Woodhouse's Toads

Imagine a cool spring evening along the Verde River in the Verde Valley. Suddenly, a nasally w-a-a-a-a-h radiates far and wide, sounding like a bleating sheep. Seconds later, another piercing scream sounds. Reeds and grasses rustle and a Woodhouse's toad moves in the water.

Announcing the Woodhouse's toads' breeding season, the males call for mates. Along rivers, in agricultural areas, and at other permanent water sources in the deserts, breeding occurs as early as February and continues into June. From June to September, breeding occurs later at higher elevations and at ephemeral ponds filled by the summer monsoon. So, the distinct sounds of the Woodhouse's toad can seem to echo throughout the watershed for months.

Females lay eggs in gelatinous strings in still-water habitats; each inch of string holds 17 to 25 eggs. Tadpoles typically take from five to eight weeks to reach metamorphosis. As adults, toads can live on land. Desiccation at any previous stage proves fatal.

Woodhouse's toad was first described in 1854 by French herpetologist Charles Girard,

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Photo by Doug Von Gausig
Article by Kathy Davis

The State of the Watershed

Springtime over the Verde River Watershed can be very dry, with a typical spring season (April through June) only receiving a little more than an inch of precipitation. However, near record rainfall made this spring somewhat of an anomaly. For the season, the Verde River Watershed reported near record rainfall that totaled an average of 3.55 inches.

As a result of frequent precipitation events, the Verde River and its tributaries experienced above median streamflow for significant periods of time this spring. In fact, Wet Beaver Creek had record flows early in June. In addition, soil moisture conditions are well above average, which has translated into a delayed start to the fire season.

So, will this wet weather continue into summer? The answer to this question is not as easy as one would think. Summer rains are made up of individual thunderstorm cells that are much smaller in scale than winter and spring weather systems. This makes forecasting seasonal rainfall for the summer a challenge. However, one positive is that the wet phase of the Monsoon has already started. This could translate to a longer rainy season, which could result in greater accumulations.

Article by James Walter, Salt River Project



Photo by Gary Beverly

Conservation: Water Use Awareness

California isn't the only place facing water shortages. Water managers in 40 states expect shortages during the next decade.

We use the most water outdoors, which can be remedied by converting lawns and water intensive plants to no- or low-water landscaping.

Indoors, the two best ways to save water are replacing water-wasting appliances and fixtures, and changing our lifestyles and habits. The first requires up-front expense and the second is a long-term commitment. Do both and you can cut usage in half, which is good for the earth and your budget.

The highest indoor uses are toilets, washers, showers, faucets, and leaks. After fixing leaks, the most effective way to save water indoors is to install low-flow toilets and showerheads, use high-efficiency clothes and dish washers, reduce showers to five minutes, wash only full loads, and reduce toilet flushes by 25%. Don't use the toilet as a trash can.

Adapted from Consumer Reports, July 2015

Where does it go?

In the US, average household water usage is approximately 255 gallons per day.

- 29% - outdoor use
- 19% - toilet
- 15% - washer
- 12% - shower
- 11% - faucets
- 10% - leaks
- 4% - other

The Verde River Basin Partnership

◆ Informing the community about our water ◆

The Verde River Basin Partnership is a non-profit organization comprised of both individual members and entity partner members (public and private organizations) who share a common goal. This goal is to support and preserve the long-term health of the Verde River and its watershed.

Our mission:

The Partnership is a scientific and educational resource raising awareness among citizens and community leaders about the workings and limitations of Verde River Basin's interconnected groundwater and surface water systems, and the life they support.

Our vision:

The Partnership aims to secure the long-term health of Verde River Basin's groundwater and surface waters, by assisting citizens and community leaders in exploring strategies and management practices that will sustain the Verde River system for all future generations.

Learn more about us and get involved:

- Visit our website www.vrbp.org
- Find us on Facebook
- Read our Guiding Principles
- Become a volunteer
- Make a donation
- Email us at info@vrbp.org

We seek to engage the community in informed discussions about water resources in the Verde River Basin. We outreach to the community through many routes to fulfill our mission - from publications to presentations to monthly programs and other events.

Woodhouse's Toads (continued from page 3)

who named it *Bufo woodhousii* to honor American naturalist Samuel Woodhouse. In 2006, it was moved to another genus, thus becoming *Anaxyrus woodhousii* with three recognized subspecies.

It is a medium-sized (5 inches) true toad native to the Western and Central United States and Northern Mexico. In its western range, it is found in a variety of wetland communities, such as lowland riparian corridors - wooded land by streams and rivers - and at higher elevations, it inhabits meadows, ponds, reservoirs, and lakes. It is also found in gardens, canals, and irrigated land. They will hop short distances, but are not great leapers like some frogs.

This toad is typically nocturnal, feeding on insects and other small invertebrates. Around human habitations they often gather beneath outside lights to feed on the insects they attract. Small, young toads may be seen

in the daytime; otherwise, the toads burrow into the soil, hide in debris piles or tuck way in flowerpots. They hibernate in winter by burrowing into soft ground or going under debris piles.

Predators are raccoons, skunks, snakes, herons, and fish (which eat the tadpoles); however, luckily for Woodhouse's toads, they are one of very few species of native anurans (toads and frogs) that coexist well with introduced species such as American bullfrogs, crayfish, and a variety of fishes.



Photo by Lon Brehmer and Enriqueta Flores Guevara

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